

09/890823

By Express Mail # EL793472485US · August 6, 2001

--ABSTRACT OF THE DISCLOSURE

An inductive sensor for determining a position of a body moveable on a fixed housing includes an inductive transmission element in the body, the transmission element being operative for generating an alternating magnetic field flux. The body is movably arranged such that the flux passes over a flux path area of the housing. At least one conductor loop is arranged on the housing along a measuring length on the housing which measuring length can extend in a linear course or a circular course. At least one conductor loop is arranged on the housing extending along the measuring length, the conductor loop including a feed line and a return line. The return line has a path which at regular intervals of said measurement length alternates into and out of said flux path area. A permeation of the return line at a given measurement path location by the flux of the flux region induces a loop output voltage indicative of a body measurement length position on the housing or of a body angular position on the body.--

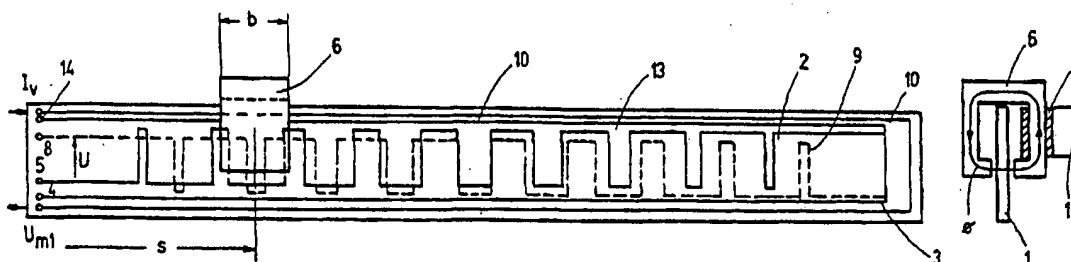
09890823-080601

PCT
WELTORGANISATION FÜR GEISTIGES EIGENTUM
Internationales Büro
INTERNATIONALE ANMELDUNG VERÖFFENTLICHT NACH DEM VERTRAG ÜBER DIE
INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES PATENTWESENS (PCT)

(51) Internationale Patentklassifikation ⁷ : G01D 5/20	A1	(11) Internationale Veröffentlichungsnummer: WO 00/46574 (43) Internationales Veröffentlichungsdatum: 10. August 2000 (10.08.00)
<p>(21) Internationales Aktenzeichen: PCT/DE99/04126</p> <p>(22) Internationales Anmeldedatum: 29. Dezember 1999 (29.12.99)</p> <p>(30) Prioritätsdaten: 199 04 689.1 5. Februar 1999 (05.02.99) DE 199 05 847.4 12. Februar 1999 (12.02.99) DE</p> <p>(71) Anmelder (für alle Bestimmungsstaaten ausser US): HORST SIEDLE GMBH & CO. KG [DE/DE]; Bregstrasse 1, D-78120 Furtwangen (DE).</p> <p>(72) Erfinder; und (75) Erfinder/Anmelder (nur für US): GLEIXNER, Franz [DE/DE]; Flurstrasse 28, D-85244 Röhmoos (DE).</p> <p>(74) Anwalt: OTTE & JAKELSKI; Mollenbachstrasse 37, D-71229 Leonberg (DE).</p>	<p>(81) Bestimmungsstaaten: US, europäisches Patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).</p> <p>Veröffentlicht Mit internationalem Recherchenbericht.</p>	

(54) Title: **DISPLACEMENT AND/OR ANGLE SENSOR COMPRISING A MEANDERING MEASURING WINDING**

(54) Bezeichnung: **WEG- UND/ODER WINKELAUFNEMER MIT MÄANDERFÖRMIGER MESSWICKLUNG**



(57) Abstract

The invention relates to an inductive measured value sensor for determining the position of a body which can be displaced with regard to a stationary housing. The inventive sensor is characterized in that the displaceable body has an inductive transmission element which generates a magnetic alternating field extending over a limited area. In addition, this alternating field entirely or partially permeates at least one conductor loop which extends over the measuring length and which is connected to the housing. Said conductor loop comprises a feed line along the measuring path, and the return line thereof is configured in such a way that it is alternatively guided in regular intervals such that it is either permeated only slightly by the alternating field of the transmission element or is permeated by a predominate portion of the alternating field, and such that the areas with a high alternating field permeation have a width that is proportional to the expected output value associated with the desired position value, and the output voltage thereof is conducted to an output.